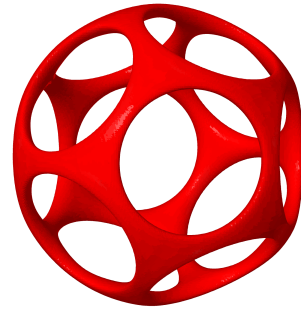**Oberseminar Geometrie**
Department of Mathematics
University of Fribourg
Seminar room, Math II (Lonza)
Wednesday November 6, 2019, 10:20

Stefan Wenger (UniFR)

Finding good parametrizations for metric surfaces

By the classical uniformization theorem, every smooth Riemann surface is conformally diffeomorphic to a surface of constant curvature. One can ask whether a version of this fact is true when the smooth Riemannian metric is replaced by a non-smooth distance. Does the so obtained metric surface still admit a parametrization with good geometric and analytic properties? A landmark result in this area is a theorem of Bonk and Kleiner on the existence of quasisymmetric parametrizations of linearly locally connected, Ahlfors 2-regular metric 2-spheres. In this talk, I will give an introduction to the uniformization problem for metric surfaces and provide some motivations coming from geometric group theory and the theory of Gromov hyperbolic groups. I will then outline a new and conceptually simple approach to the Bonk-Kleiner theorem which I have recently discovered together with Alexander Lytchak.